

ABSTRACT

A hybrid wireless link 100 of the present invention provides a gateway between two wired data systems 102, such as backbone fiber networks, and comprises a laser portion 104, a radio frequency portion 106, and a controller 108. The laser portion 104 and the radio frequency portion 106 provide, side-by-side and point-to-point, a free-space optical wireless link and a radio frequency wireless link. The controller 108 may be designed to respond to atmospheric conditions based on environmental information such as weather tables or the transmit/receive power of the laser portion 104 and the radio frequency portion 106, with signal switched between the laser portion 104 and the radio frequency portion 106 with a binary switch or a variety of latched levels using an incremental switch. The hybrid wireless link 100 may also use multiple channels and may be configured for a variety of networks including multi-channel ring topologies.